

Designing Interactive On-line Manuals for Products with Complicated Operations

Demonstrated by a Case Study of Cell Phone

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Abstract

Today, people have to face more and more products with complicated operations.

Conventionally, the users learn how to use these products by reading the printed manuals. However, due to the poor design in most manuals and the innate limitation of printed materials, such as the passive linear structure and the deficiency of interaction, people are always frustrated in the learning. Most people give up learning but either to guess the operation of functions by intuition, or just to leave most functions unused.

On the other hand, the features of high interaction and hyper linking in the recently developed Internet may be applicable in designing an appropriate on-line manual to resolve this problem. Thus, in this study, we used the Nokia 8210 cell phone as a target example to design a highly interactive on-line manual through a comprehensive design procedure. We started with reviewing the printed manual of the cell phone, asking questions to users by questionnaire and interview and testing the skill of users in operating some critical functions. From this, we have found the problems and difficulties of users in learning the usage of this phone as well as the opportunity for designing a better manual. Taking this finding with the design principles for manual design and homepage from related literatures as well as some interesting ideas of interaction learned from several good homepage designs, a prototype of the on-line manual of this phone was developed, evaluated, modified, and proved step by step.

We expect to conclude from this case study the general guidelines for further applications of designing on-line manual.

Keywords

on-line manual, cell phone, interactive design, hypermedia, interface design.

Development of Metaphor-based Interface Design for VR Manipulator

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Abstract

This research aims to establish a systematic approach to the development of metaphor and corresponding user models for VR interface design. Metaphors have been used in various domains as means to extend the user's mental models. Current research effort regarding VR interface design is mainly concentrated on static objects or visual information. In contrast, this research focuses on more integrating and dynamic aspects of VR interface such as interaction activities, task sequences, and operational motions. Finding principles for the selection and composition of appropriate metaphors is crucial for systematical dealing with this problem. User observation and task analysis were conducted to identify the cognitive difficulties that users face in performing the operations on VR objects. A VR manipulator that spatially provides the dynamic information and history was designed to mitigate those difficulties and cognitive load.

Keywords

Virtual Reality, HCI, Metaphor, Cognitive Aiding